EFFECT OF WEATHER ON CROPS ARD FARMING OPERATIONS, AUGUST, 1920.

By J. WARREN SMITH, Meteorologist.

(Weather Bureau, Washington, Oct. 1, 1920.)

There was considerable interruption to farm work during much of August in the South and in most of the Middle and South Atlantic Coast States by frequent rains, and the totals for the month were unusually heavy in much of that area. Otherwise the weather was generally favorable for outdoor operations and all seasonal farm work made satisfactory progress, especially that of harvesting and thrashing the winter grain crops. At the close of the month the harvest of winter grain was nearing completion in the late northwestern districts and that of spring grain was progressing satisfactorily. The preparation of soil for winter-wheat seeding made generally satisfactory progress, with ample soil moisture in nearly Plowing was general in Illinois at the close all sections. of the month, was well advanced in Missouri, and further along than in an average year in Kansas. Some wheat was sown in the northwestern portion of the belt.

At the beginning of the month growing crops, especially corn, needed moisture rather badly in much of Missouri, Kentucky, and Illinois, and droughty conditions had become severe in some interior sections by the middle of the month. These conditions were largely relieved, however, soon thereafter by good rains in the central Great Plains, the lower Missouri, and the central and upper Mississippi Valleys, resulting in a marked improvement in the corn crop in those sections. Corn continued satisfactory development in most of the South and in the Atlantic Coast States, but in some north-central districts the lack of moisture and the cool weather resulted in deterioration. At the close of the month the condition of the crop continued above the average in all of the principal producing States, except in Illinois, and there was a rather marked improvement during the month in most sections, particularly in the central Great Plains. where the Bureau of Crop Estimates reported a condition of 140 to 190 per cent of the 10-year average, with an improvement during the period of 20 to 25 per cent.

There was considerable interruption to rice harvest in the lower Mississippi Valley and the west Gulf districts, and some rice was damaged by too much rain. Grain sorghums made satisfactory development in the lower Great Plains but were considerably later than usual in Kansas, where there was some fear as to maturity before frost. While buckwheat continued in better condition than usual in the principal producing States, there was some falling off in its condition, particularly in parts of New England, New Jersey, and Maryland, where the decline during the month ranged from 9 to 15 per cent, as reported by the Bureau of Crop Estimates.

Much cloudy, showery weather prevailed in the cotton belt after the first decade of the month and rainfall was frequently excessive. The result was generally unfavorable for cotton and the crop deteriorated in many sections of the belt, with much insect damage, particularly from Louisiana eastward. For the month as a whole, the weather was fairly favorable in the Carolinas, Tenessee, Arkansas, and Texas, and at its close the condition of cotton in those States was near the average, while the condition was fair to very good in Oklahoma. As a result of the continued unfavorable weather, however, the crop deteriorated in other portions of the belt and at the close of the month was in mostly poor condition, particularly in Louisiana, Mississippi, Alabama, Georgia, and Florida. By the end of the month picking was becoming general in Georgia and southern Alabama and was begun in South Carolina, but this work was being delayed in many southern sections of the belt by continued wet weather.

In considering the combined condition of all crops by States at the close of the month, and the change in condition during August, it is noted that a material improvement was recorded in nearly all central districts, where rainfall was generous during the month. A deterioration was shown from Louisiana eastward, where excessive rains occurred, and also from the upper Lake region westward, where rainfall was deficient. In parts of the latter area, the decline was as much as 10 per cent, while in the central and southern Great Plains, where moisture conditions were more favorable, an improvement, ranging

from 5 to 18 per cent, was recorded.